



SEQUENCE LISTING

<110> MCCARTHY, Sean A
FRASER, Christopher C
SHARP, John D
BARNES, Thomas S
KIRST, Susan J
MYERS, Paul S
WRIGHTON, Nicholas
GOODEARL, Andrew
HOLTZMAN, Douglas A
KHODADOUST, Mehran M

<120> NOVEL GENES ENCODING PROTEINS HAVING PROGNOSTIC,
DIAGNOSTIC, PREVENTIVE, THERAPEUTIC, AND OTHER USES

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<140> 09/766,511
<141> 2001-01-19

<150> US 09/578,063
<151> 2000-05-24

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Phe Leu Leu Met Met Gly Val Leu Phe Cys Cys Gly Ala Gly Phe Phe
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Arg Cys Cys Val Arg Ala Leu Ser Ile Gln Arg Leu Trp Tyr Phe Trp
          50             55             60
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Phe Leu Leu Met Met Gly Val Leu Phe Cys Cys Gly Ala Gly Phe Phe
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aaacgcttag	atcctggaat	atttaaggga	cttttaaata	ttcgtaattt	atatttacag	420
tataatcagg	tatcttttgt	tccgagagga	gtatttaaat	atctagtttc	agttcagtac	480
ttaaactctac	aaaggaatcg	cctcactgtc	cttgggagtg	gtacctttgt	tggtatgggt	540
gctcttcgga	tacttgattt	atcaaacaat	aacattttga	ggatatcaga	atcaggcttt	600
caacatcttg	aaaaccttgc	ttgtttgtat	ttaggaagta	ataatttaac	aaaagtacca	660
tcaaatgcct	ttgaagtact	taaaagtctt	agaagacttt	ctttgtctca	taatcctatt	720
gaagcaatac	agccctttgc	atttaaagga	cttgccaatc	tggaatacct	cctcctgaaa	780
aattcaagaa	ttaggaatgt	tactagggat	gggttttagtg	gaattaataa	tcttaaacat	840
ttgatcttaa	gtcataatga	tttagagaat	ttaaattctg	acacattcag	tttgtaaag	900
aatttaattt	accttaagtt	agatagaaac	agaataatta	gcattgataa	tgatacattt	960
gaaaatatgg	gagcatcttt	gaagatcctt	aatctgtcat	ttaataatct	tacagccttg	1020
catccaaggg	tccttaagcc	gttgtcttca	ttgattcatc	ttcaggcaaa	ttctaatacct	1080
tgggaatgta	actgcaaact	tttgggcctt	cgagactggc	tagcatcttc	agccattact	1140
ctaaacatct	attgtcagaa	tcccccatcc	atgcgtggca	gagcattacg	ttatattaac	1200
attacaaatt	gtgttacatc	ttcaataaat	gtatccagag	cttgggctgt	tgtaaaatct	1260

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cctcatattc atcacaagac tactgcgcta atgatggcct ggcataaagt aaccacaaat 1320
ggcagtcctc tggaaaatac tgagactgag aacattactt tctgggaacg aattcctact 1380
tcacctgctg gtagattttt tcaagagaat gcctttggta atccattaga gactacagca 1440
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aactcaaggg aaaatagact tgaatactac agcttttatc agtcagcaag gtataatgta 1740
actgcctcaa tttgtaacac ttcccaaact tctctagaaa gtcctggctt ggagcagatt 1800
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gcttta

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<210> 23

<211> 622

<212> PRT

<213> Homo sapiens

<400> 23

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Met Cys Gly Leu Gln Phe Ser Leu Pro Cys Leu Arg Leu Phe Leu Val
  1               5               10              15

```

```

Val Thr Cys Tyr Leu Leu Leu Leu Leu His Lys Glu Ile Leu Gly Cys
      20                25                30

```

```

Ser Ser Val Cys Gln Leu Cys Thr Gly Arg Gln Ile Asn Cys Arg Asn
      35                40                45

```

```

Leu Gly Leu Ser Ser Ile Pro Lys Asn Phe Pro Glu Ser Thr Val Phe
      50                55                60

```

```

Leu Tyr Leu Thr Gly Asn Asn Ile Ser Tyr Ile Asn Glu Ser Glu Leu
      65                70                75                80

```

```

Thr Gly Leu His Ser Leu Val Ala Leu Tyr Leu Asp Asn Ser Asn Ile
      85                90                95

```

```

Leu Tyr Val Tyr Pro Lys Ala Phe Val Gln Leu Arg His Leu Tyr Phe
      100               105               110

```

```

Leu Phe Leu Asn Asn Asn Phe Ile Lys Arg Leu Asp Pro Gly Ile Phe
      115               120               125

```

```

Lys Gly Leu Leu Asn Leu Arg Asn Leu Tyr Leu Gln Tyr Asn Gln Val
      130               135               140

```

```

Ser Phe Val Pro Arg Gly Val Phe Asn Asp Leu Val Ser Val Gln Tyr
      145               150               155               160

```

Leu Asn Leu Gln Arg Asn Arg Leu Thr Val Leu Gly Ser Gly Thr Phe
 165 170 175

Val Gly Met Val Ala Leu Arg Ile Leu Asp Leu Ser Asn Asn Asn Ile
 180 185 190

Leu Arg Ile Ser Glu Ser Gly Phe Gln His Leu Glu Asn Leu Ala Cys
 195 200 205

Leu Tyr Leu Gly Ser Asn Asn Leu Thr Lys Val Pro Ser Asn Ala Phe
 210 215 220

Glu Val Leu Lys Ser Leu Arg Arg Leu Ser Leu Ser His Asn Pro Ile
 225 230 235 240

Glu Ala Ile Gln Pro Phe Ala Phe Lys Gly Leu Ala Asn Leu Glu Tyr
 245 250 255

Leu Leu Leu Lys Asn Ser Arg Ile Arg Asn Val Thr Arg Asp Gly Phe
 260 265 270

Ser Gly Ile Asn Asn Leu Lys His Leu Ile Leu Ser His Asn Asp Leu
 275 280 285

Glu Asn Leu Asn Ser Asp Thr Phe Ser Leu Leu Lys Asn Leu Ile Tyr
 290 295 300

Leu Lys Leu Asp Arg Asn Arg Ile Ile Ser Ile Asp Asn Asp Thr Phe
 305 310 315 320

Glu Asn Met Gly Ala Ser Leu Lys Ile Leu Asn Leu Ser Phe Asn Asn
 325 330 335

Leu Thr Ala Leu His Pro Arg Val Leu Lys Pro Leu Ser Ser Leu Ile
 340 345 350

His Leu Gln Ala Asn Ser Asn Pro Trp Glu Cys Asn Cys Lys Leu Leu
 355 360 365

Gly Leu Arg Asp Trp Leu Ala Ser Ser Ala Ile Thr Leu Asn Ile Tyr
 370 375 380

Cys Gln Asn Pro Pro Ser Met Arg Gly Arg Ala Leu Arg Tyr Ile Asn
 385 390 395 400

Ile Thr Asn Cys Val Thr Ser Ser Ile Asn Val Ser Arg Ala Trp Ala
 405 410 415

Val Val Lys Ser Pro His Ile His His Lys Thr Thr Ala Leu Met Met
420 425 430

Ala Trp His Lys Val Thr Thr Asn Gly Ser Pro Leu Glu Asn Thr Glu
435 440 445

Thr Glu Asn Ile Thr Phe Trp Glu Arg Ile Pro Thr Ser Pro Ala Gly
450 455 460

Arg Phe Phe Gln Glu Asn Ala Phe Gly Asn Pro Leu Glu Thr Thr Ala
465 470 475 480

Val Leu Pro Val Gln Ile Gln Leu Thr Thr Ser Val Thr Leu Asn Leu
485 490 495

Glu Lys Asn Ser Ala Leu Pro Asn Asp Ala Ala Ser Met Ser Gly Lys
500 505 510

Thr Ser Leu Ile Cys Thr Gln Glu Val Glu Lys Leu Asn Glu Ala Phe
515 520 525

Asp Ile Leu Leu Ala Phe Phe Ile Leu Ala Cys Val Leu Ile Ile Phe
530 535 540

Leu Ile Tyr Lys Val Val Gln Phe Lys Gln Lys Leu Lys Ala Ser Glu
545 550 555 560

Asn Ser Arg Glu Asn Arg Leu Glu Tyr Tyr Ser Phe Tyr Gln Ser Ala
565 570 575

Arg Tyr Asn Val Thr Ala Ser Ile Cys Asn Thr Ser Pro Asn Ser Leu
580 585 590

Glu Ser Pro Gly Leu Glu Gln Ile Arg Leu His Lys Gln Ile Val Pro
595 600 605

Glu Asn Glu Ala Gln Val Ile Leu Phe Glu His Ser Ala Leu
610 615 620

<210> 24

<211> 31

<212> PRT

<213> Homo sapiens

<400> 24

Met Cys Gly Leu Gln Phe Ser Leu Pro Cys Leu Arg Leu Phe Leu Val

1	5	10	15
---	---	----	----

Val Thr Cys Tyr Leu Leu Leu Leu Leu His Lys Glu Ile Leu Gly
20 25 30

<210> 25
<211> 591
<212> PRT
<213> Homo sapiens

<400> 25
Cys Ser Ser Val Cys Gln Leu Cys Thr Gly Arg Gln Ile Asn Cys Arg
1 5 10 15

Asn Leu Gly Leu Ser Ser Ile Pro Lys Asn Phe Pro Glu Ser Thr Val
20 25 30

Phe Leu Tyr Leu Thr Gly Asn Asn Ile Ser Tyr Ile Asn Glu Ser Glu
35 40 45

Leu Thr Gly Leu His Ser Leu Val Ala Leu Tyr Leu Asp Asn Ser Asn
50 55 60

Ile Leu Tyr Val Tyr Pro Lys Ala Phe Val Gln Leu Arg His Leu Tyr
65 70 75 80

Phe Leu Phe Leu Asn Asn Asn Phe Ile Lys Arg Leu Asp Pro Gly Ile
85 90 95

Phe Lys Gly Leu Leu Asn Leu Arg Asn Leu Tyr Leu Gln Tyr Asn Gln
100 105 110

Val Ser Phe Val Pro Arg Gly Val Phe Asn Asp Leu Val Ser Val Gln
115 120 125

Tyr Leu Asn Leu Gln Arg Asn Arg Leu Thr Val Leu Gly Ser Gly Thr
130 135 140

Phe Val Gly Met Val Ala Leu Arg Ile Leu Asp Leu Ser Asn Asn Asn
145 150 155 160

Ile Leu Arg Ile Ser Glu Ser Gly Phe Gln His Leu Glu Asn Leu Ala
165 170 175

Cys Leu Tyr Leu Gly Ser Asn Asn Leu Thr Lys Val Pro Ser Asn Ala
180 185 190

Phe Glu Val Leu Lys Ser Leu Arg Arg Leu Ser Leu Ser His Asn Pro
195 200 205
Ile Glu Ala Ile Gln Pro Phe Ala Phe Lys Gly Leu Ala Asn Leu Glu
210 215 220
Tyr Leu Leu Leu Lys Asn Ser Arg Ile Arg Asn Val Thr Arg Asp Gly
225 230 235 240
Phe Ser Gly Ile Asn Asn Leu Lys His Leu Ile Leu Ser His Asn Asp
245 250 255
Leu Glu Asn Leu Asn Ser Asp Thr Phe Ser Leu Leu Lys Asn Leu Ile
260 265 270
Tyr Leu Lys Leu Asp Arg Asn Arg Ile Ile Ser Ile Asp Asn Asp Thr
275 280 285
Phe Glu Asn Met Gly Ala Ser Leu Lys Ile Leu Asn Leu Ser Phe Asn
290 295 300
Asn Leu Thr Ala Leu His Pro Arg Val Leu Lys Pro Leu Ser Ser Leu
305 310 315 320
Ile His Leu Gln Ala Asn Ser Asn Pro Trp Glu Cys Asn Cys Lys Leu
325 330 335
Leu Gly Leu Arg Asp Trp Leu Ala Ser Ser Ala Ile Thr Leu Asn Ile
340 345 350
Tyr Cys Gln Asn Pro Pro Ser Met Arg Gly Arg Ala Leu Arg Tyr Ile
355 360 365
Asn Ile Thr Asn Cys Val Thr Ser Ser Ile Asn Val Ser Arg Ala Trp
370 375 380
Ala Val Val Lys Ser Pro His Ile His His Lys Thr Thr Ala Leu Met
385 390 395 400
Met Ala Trp His Lys Val Thr Thr Asn Gly Ser Pro Leu Glu Asn Thr
405 410 415
Glu Thr Glu Asn Ile Thr Phe Trp Glu Arg Ile Pro Thr Ser Pro Ala
420 425 430
Gly Arg Phe Phe Gln Glu Asn Ala Phe Gly Asn Pro Leu Glu Thr Thr
435 440 445

Ala Val Leu Pro Val Gln Ile Gln Leu Thr Thr Ser Val Thr Leu Asn
 450 455 460

Leu Glu Lys Asn Ser Ala Leu Pro Asn Asp Ala Ala Ser Met Ser Gly
 465 470 475 480

Lys Thr Ser Leu Ile Cys Thr Gln Glu Val Glu Lys Leu Asn Glu Ala
 485 490 495

Phe Asp Ile Leu Leu Ala Phe Phe Ile Leu Ala Cys Val Leu Ile Ile
 500 505 510

Phe Leu Ile Tyr Lys Val Val Gln Phe Lys Gln Lys Leu Lys Ala Ser
 515 520 525

Glu Asn Ser Arg Glu Asn Arg Leu Glu Tyr Tyr Ser Phe Tyr Gln Ser
 530 535 540

Ala Arg Tyr Asn Val Thr Ala Ser Ile Cys Asn Thr Ser Pro Asn Ser
 545 550 555 560

Leu Glu Ser Pro Gly Leu Glu Gln Ile Arg Leu His Lys Gln Ile Val
 565 570 575

Pro Glu Asn Glu Ala Gln Val Ile Leu Phe Glu His Ser Ala Leu
 580 585 590

<210> 26
 <211> 498
 <212> PRT
 <213> Homo sapiens

<400> 26
 Cys Ser Ser Val Cys Gln Leu Cys Thr Gly Arg Gln Ile Asn Cys Arg
 1 5 10 15

Asn Leu Gly Leu Ser Ser Ile Pro Lys Asn Phe Pro Glu Ser Thr Val
 20 25 30

Phe Leu Tyr Leu Thr Gly Asn Asn Ile Ser Tyr Ile Asn Glu Ser Glu
 35 40 45

Leu Thr Gly Leu His Ser Leu Val Ala Leu Tyr Leu Asp Asn Ser Asn
 50 55 60

Ile Leu Tyr Val Tyr Pro Lys Ala Phe Val Gln Leu Arg His Leu Tyr
 65 70 75 80

Phe Leu Phe Leu Asn Asn Asn Phe Ile Lys Arg Leu Asp Pro Gly Ile
85 90 95
Phe Lys Gly Leu Leu Asn Leu Arg Asn Leu Tyr Leu Gln Tyr Asn Gln
100 105 110
Val Ser Phe Val Pro Arg Gly Val Phe Asn Asp Leu Val Ser Val Gln
115 120 125
Tyr Leu Asn Leu Gln Arg Asn Arg Leu Thr Val Leu Gly Ser Gly Thr
130 135 140
Phe Val Gly Met Val Ala Leu Arg Ile Leu Asp Leu Ser Asn Asn Asn
145 150 155 160
Ile Leu Arg Ile Ser Glu Ser Gly Phe Gln His Leu Glu Asn Leu Ala
165 170 175
Cys Leu Tyr Leu Gly Ser Asn Asn Leu Thr Lys Val Pro Ser Asn Ala
180 185 190
Phe Glu Val Leu Lys Ser Leu Arg Arg Leu Ser Leu Ser His Asn Pro
195 200 205
Ile Glu Ala Ile Gln Pro Phe Ala Phe Lys Gly Leu Ala Asn Leu Glu
210 215 220
Tyr Leu Leu Leu Lys Asn Ser Arg Ile Arg Asn Val Thr Arg Asp Gly
225 230 235 240
Phe Ser Gly Ile Asn Asn Leu Lys His Leu Ile Leu Ser His Asn Asp
245 250 255
Leu Glu Asn Leu Asn Ser Asp Thr Phe Ser Leu Leu Lys Asn Leu Ile
260 265 270
Tyr Leu Lys Leu Asp Arg Asn Arg Ile Ile Ser Ile Asp Asn Asp Thr
275 280 285
Phe Glu Asn Met Gly Ala Ser Leu Lys Ile Leu Asn Leu Ser Phe Asn
290 295 300
Asn Leu Thr Ala Leu His Pro Arg Val Leu Lys Pro Leu Ser Ser Leu
305 310 315 320
Ile His Leu Gln Ala Asn Ser Asn Pro Trp Glu Cys Asn Cys Lys Leu
325 330 335

Leu Gly Leu Arg Asp Trp Leu Ala Ser Ser Ala Ile Thr Leu Asn Ile
340 345 350

Tyr Cys Gln Asn Pro Pro Ser Met Arg Gly Arg Ala Leu Arg Tyr Ile
355 360 365

Asn Ile Thr Asn Cys Val Thr Ser Ser Ile Asn Val Ser Arg Ala Trp
370 375 380

Ala Val Val Lys Ser Pro His Ile His His Lys Thr Thr Ala Leu Met
385 390 395 400

Met Ala Trp His Lys Val Thr Thr Asn Gly Ser Pro Leu Glu Asn Thr
405 410 415

Glu Thr Glu Asn Ile Thr Phe Trp Glu Arg Ile Pro Thr Ser Pro Ala
420 425 430

Gly Arg Phe Phe Gln Glu Asn Ala Phe Gly Asn Pro Leu Glu Thr Thr
435 440 445

Ala Val Leu Pro Val Gln Ile Gln Leu Thr Thr Ser Val Thr Leu Asn
450 455 460

Leu Glu Lys Asn Ser Ala Leu Pro Asn Asp Ala Ala Ser Met Ser Gly
465 470 475 480

Lys Thr Ser Leu Ile Cys Thr Gln Glu Val Glu Lys Leu Asn Glu Ala
485 490 495

Phe Asp

<210> 27

<211> 18

<212> PRT

<213> Homo sapiens

<400> 27

Ile Leu Leu Ala Phe Phe Ile Leu Ala Cys Val Leu Ile Ile Phe Leu
1 5 10 15

Ile Tyr

<210> 28
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 28
 Lys Val Val Gln Phe Lys Gln Lys Leu Lys Ala Ser Glu Asn Ser Arg
 1 5 10 15
 Glu Asn Arg Leu Glu Tyr Tyr Ser Phe Tyr Gln Ser Ala Arg Tyr Asn
 20 25 30
 Val Thr Ala Ser Ile Cys Asn Thr Ser Pro Asn Ser Leu Glu Ser Pro
 35 40 45
 Gly Leu Glu Gln Ile Arg Leu His Lys Gln Ile Val Pro Glu Asn Glu
 50 55 60
 Ala Gln Val Ile Leu Phe Glu His Ser Ala Leu
 65 70 75

<210> 29
 <211> 1529
 <212> PRT
 <213> Homo sapiens

<400> 29
 Met Arg Gly Val Gly Trp Gln Met Leu Ser Leu Ser Leu Gly Leu Val
 1 5 10 15
 Leu Ala Ile Leu Asn Lys Val Ala Pro Gln Ala Cys Pro Ala Gln Cys
 20 25 30
 Ser Cys Ser Gly Ser Thr Val Asp Cys His Gly Leu Ala Leu Arg Ser
 35 40 45
 Val Pro Arg Asn Ile Pro Arg Asn Thr Glu Arg Leu Asp Leu Asn Gly
 50 55 60
 Asn Asn Ile Thr Arg Ile Thr Lys Thr Asp Phe Ala Gly Leu Arg His
 65 70 75 80
 Leu Arg Val Leu Gln Leu Met Glu Asn Lys Ile Ser Thr Ile Glu Arg
 85 90 95
 Gly Ala Phe Gln Asp Leu Lys Glu Leu Glu Arg Leu Arg Leu Asn Arg
 100 105 110

Asn	His	Leu	Gln	Leu	Phe	Pro	Glu	Leu	Leu	Phe	Leu	Gly	Thr	Ala	Lys	115	120	125
Leu	Tyr	Arg	Leu	Asp	Leu	Ser	Glu	Asn	Gln	Ile	Gln	Ala	Ile	Pro	Arg	130	135	140
Lys	Ala	Phe	Arg	Gly	Ala	Val	Asp	Ile	Lys	Asn	Leu	Gln	Leu	Asp	Tyr	145	150	155
Asn	Gln	Ile	Ser	Cys	Ile	Glu	Asp	Gly	Ala	Phe	Arg	Ala	Leu	Arg	Asp	165	170	175
Leu	Glu	Val	Leu	Thr	Leu	Asn	Asn	Asn	Asn	Ile	Thr	Arg	Leu	Ser	Val	180	185	190
Ala	Ser	Phe	Asn	His	Met	Pro	Lys	Leu	Arg	Thr	Phe	Arg	Leu	His	Ser	195	200	205
Asn	Asn	Leu	Tyr	Cys	Asp	Cys	His	Leu	Ala	Trp	Leu	Ser	Asp	Trp	Leu	210	215	220
Arg	Gln	Arg	Pro	Arg	Val	Gly	Leu	Tyr	Thr	Gln	Cys	Met	Gly	Pro	Ser	225	230	235
His	Leu	Arg	Gly	His	Asn	Val	Ala	Glu	Val	Gln	Lys	Arg	Glu	Phe	Val	245	250	255
Cys	Ser	Gly	His	Gln	Ser	Phe	Met	Ala	Pro	Ser	Cys	Ser	Val	Leu	His	260	265	270
Cys	Pro	Ala	Ala	Cys	Thr	Cys	Ser	Asn	Asn	Ile	Val	Asp	Cys	Arg	Gly	275	280	285
Lys	Gly	Leu	Thr	Glu	Ile	Pro	Thr	Asn	Leu	Pro	Glu	Thr	Ile	Thr	Glu	290	295	300
Ile	Arg	Leu	Glu	Gln	Asn	Thr	Ile	Lys	Val	Ile	Pro	Pro	Gly	Ala	Phe	305	310	315
Ser	Pro	Tyr	Lys	Lys	Leu	Arg	Arg	Ile	Asp	Leu	Ser	Asn	Asn	Gln	Ile	325	330	335
Ser	Glu	Leu	Ala	Pro	Asp	Ala	Phe	Gln	Gly	Leu	Arg	Ser	Leu	Asn	Ser	340	345	350
Leu	Val	Leu	Tyr	Gly	Asn	Lys	Ile	Thr	Glu	Leu	Pro	Lys	Ser	Leu	Phe	355	360	365

Glu Gly Leu Phe Ser Leu Gln Leu Leu Leu Leu Asn Ala Asn Lys Ile
 370 375 380

Asn Cys Leu Arg Val Asp Ala Phe Gln Asp Leu His Asn Leu Asn Leu
 385 390 395 400

Leu Ser Leu Tyr Asp Asn Lys Leu Gln Thr Ile Ala Lys Gly Thr Phe
 405 410 415

Ser Pro Leu Arg Ala Ile Gln Thr Met His Leu Ala Gln Asn Pro Phe
 420 425 430

Ile Cys Asp Cys His Leu Lys Trp Leu Ala Asp Tyr Leu His Thr Asn
 435 440 445

Pro Ile Glu Thr Ser Gly Ala Arg Cys Thr Ser Pro Arg Arg Leu Ala
 450 455 460

Asn Lys Arg Ile Gly Gln Ile Lys Ser Lys Lys Phe Arg Cys Ser Ala
 465 470 475 480

Lys Glu Gln Tyr Phe Ile Pro Gly Thr Glu Asp Tyr Arg Ser Lys Leu
 485 490 495

Ser Gly Asp Cys Phe Ala Asp Leu Ala Cys Pro Glu Lys Cys Arg Cys
 500 505 510

Glu Gly Thr Thr Val Asp Cys Ser Asn Gln Lys Leu Asn Lys Ile Pro
 515 520 525

Glu His Ile Pro Gln Tyr Thr Ala Glu Leu Arg Leu Asn Asn Asn Glu
 530 535 540

Phe Thr Val Leu Glu Ala Thr Gly Ile Phe Lys Lys Leu Pro Gln Leu
 545 550 555 560

Arg Lys Ile Asn Phe Ser Asn Asn Lys Ile Thr Asp Ile Glu Glu Gly
 565 570 575

Ala Phe Glu Gly Ala Ser Gly Val Asn Glu Ile Leu Leu Thr Ser Asn
 580 585 590

Arg Leu Glu Asn Val Gln His Lys Met Phe Lys Gly Leu Glu Ser Leu
 595 600 605

Lys Thr Leu Met Leu Arg Ser Asn Arg Ile Thr Cys Val Gly Asn Asp
 610 615 620

Ser	Phe	Ile	Gly	Leu	Ser	Ser	Val	Arg	Leu	Leu	Ser	Leu	Tyr	Asp	Asn	
625					630					635					640	
Gln	Ile	Thr	Thr	Val	Ala	Pro	Gly	Ala	Phe	Asp	Thr	Leu	His	Ser	Leu	
				645					650					655		
Ser	Thr	Leu	Asn	Leu	Leu	Ala	Asn	Pro	Phe	Asn	Cys	Asn	Cys	Tyr	Leu	
			660					665						670		
Ala	Trp	Leu	Gly	Glu	Trp	Leu	Arg	Lys	Lys	Arg	Ile	Val	Thr	Gly	Asn	
			675					680						685		
Pro	Arg	Cys	Gln	Lys	Pro	Tyr	Phe	Leu	Lys	Glu	Ile	Pro	Ile	Gln	Asp	
			690					695				700				
Val	Ala	Ile	Gln	Asp	Phe	Thr	Cys	Asp	Asp	Gly	Asn	Asp	Asp	Asn	Ser	
705					710					715					720	
Cys	Ser	Pro	Leu	Ser	Arg	Cys	Pro	Thr	Glu	Cys	Thr	Cys	Leu	Asp	Thr	
				725					730					735		
Val	Val	Arg	Cys	Ser	Asn	Lys	Gly	Leu	Lys	Val	Leu	Pro	Lys	Gly	Ile	
			740					745						750		
Pro	Arg	Asp	Val	Thr	Glu	Leu	Tyr	Leu	Asp	Gly	Asn	Gln	Phe	Thr	Leu	
			755					760					765			
Val	Pro	Lys	Glu	Leu	Ser	Asn	Tyr	Lys	His	Leu	Thr	Leu	Ile	Asp	Leu	
			770				775					780				
Ser	Asn	Asn	Arg	Ile	Ser	Thr	Leu	Ser	Asn	Gln	Ser	Phe	Ser	Asn	Met	
785					790					795					800	
Thr	Gln	Leu	Leu	Thr	Leu	Ile	Leu	Ser	Tyr	Asn	Arg	Leu	Arg	Cys	Ile	
				805					810					815		
Pro	Pro	Arg	Thr	Phe	Asp	Gly	Leu	Lys	Ser	Leu	Arg	Leu	Leu	Ser	Leu	
				820				825						830		
His	Gly	Asn	Asp	Ile	Ser	Val	Val	Pro	Glu	Gly	Ala	Phe	Asn	Asp	Leu	
			835					840					845			
Ser	Ala	Leu	Ser	His	Leu	Ala	Ile	Gly	Ala	Asn	Pro	Leu	Tyr	Cys	Asp	
					850			855			860					
Cys	Asn	Met	Gln	Trp	Leu	Ser	Asp	Trp	Val	Lys	Ser	Glu	Tyr	Lys	Glu	
865					870					875					880	

Pro Gly Ile Ala Arg Cys Ala Gly Pro Gly Glu Met Ala Asp Lys Leu
 885 890 895

Leu Leu Thr Thr Pro Ser Lys Lys Phe Thr Cys Gln Gly Pro Val Asp
 900 905 910

Val Asn Ile Leu Ala Lys Cys Asn Pro Cys Leu Ser Asn Pro Cys Lys
 915 920 925

Asn Asp Gly Thr Cys Asn Ser Asp Pro Val Asp Phe Tyr Arg Cys Thr
 930 935 940

Cys Pro Tyr Gly Phe Lys Gly Gln Asp Cys Asp Val Pro Ile His Ala
 945 950 955 960

Cys Ile Ser Asn Pro Cys Lys His Gly Gly Thr Cys His Leu Lys Glu
 965 970 975

Gly Glu Glu Asp Gly Phe Trp Cys Ile Cys Ala Asp Gly Phe Glu Gly
 980 985 990

Glu Asn Cys Glu Val Asn Val Asp Asp Cys Glu Asp Asn Asp Cys Glu
 995 1000 1005

Asn Asn Ser Thr Cys Val Asp Gly Ile Asn Asn Tyr Thr Cys Leu Cys
 1010 1015 1020

Pro Pro Glu Tyr Thr Gly Glu Leu Cys Glu Glu Lys Leu Asp Phe Cys
 1025 1030 1035 1040

Ala Gln Asp Leu Asn Pro Cys Gln His Asp Ser Lys Cys Ile Leu Thr
 1045 1050 1055

Pro Lys Gly Phe Lys Cys Asp Cys Thr Pro Gly Tyr Val Gly Glu His
 1060 1065 1070

Cys Asp Ile Asp Phe Asp Asp Cys Gln Asp Asn Lys Cys Lys Asn Gly
 1075 1080 1085

Ala His Cys Thr Asp Ala Val Asn Gly Tyr Thr Cys Ile Cys Pro Glu
 1090 1095 1100

Gly Tyr Ser Gly Leu Phe Cys Glu Phe Ser Pro Pro Met Val Leu Pro
 1105 1110 1115 1120

Arg Thr Ser Pro Cys Asp Asn Phe Asp Cys Gln Asn Gly Ala Gln Cys
 1125 1130 1135

Ile Val Arg Ile Asn Glu Pro Ile Cys Gln Cys Leu Pro Gly Tyr Gln
 1140 1145 1150
 Gly Glu Lys Cys Glu Lys Leu Val Ser Val Asn Phe Ile Asn Lys Glu
 1155 1160 1165
 Ser Tyr Leu Gln Ile Pro Ser Ala Lys Val Arg Pro Gln Thr Asn Ile
 1170 1175 1180
 Thr Leu Gln Ile Ala Thr Asp Glu Asp Ser Gly Ile Leu Leu Tyr Lys
 1185 1190 1195 1200
 Gly Asp Lys Asp His Ile Ala Val Glu Leu Tyr Arg Gly Arg Val Arg
 1205 1210 1215
 Ala Ser Tyr Asp Thr Gly Ser His Pro Ala Ser Ala Ile Tyr Ser Val
 1220 1225 1230
 Glu Thr Ile Asn Asp Gly Asn Phe His Ile Val Glu Leu Leu Ala Leu
 1235 1240 1245
 Asp Gln Ser Leu Ser Leu Ser Val Asp Gly Gly Asn Pro Lys Ile Ile
 1250 1255 1260
 Thr Asn Leu Ser Lys Gln Ser Thr Leu Asn Phe Asp Ser Pro Leu Tyr
 1265 1270 1275 1280
 Val Gly Gly Met Pro Gly Lys Ser Asn Val Ala Ser Leu Arg Gln Ala
 1285 1290 1295
 Pro Gly Gln Asn Gly Thr Ser Phe His Gly Cys Ile Arg Asn Leu Tyr
 1300 1305 1310
 Ile Asn Ser Glu Leu Gln Asp Phe Gln Lys Val Pro Met Gln Thr Gly
 1315 1320 1325
 Ile Leu Pro Gly Cys Glu Pro Cys His Lys Lys Val Cys Ala His Gly
 1330 1335 1340
 Thr Cys Gln Pro Ser Ser Gln Ala Gly Phe Thr Cys Glu Cys Gln Glu
 1345 1350 1355 1360
 Gly Trp Met Gly Pro Leu Cys Asp Gln Arg Thr Asn Asp Pro Cys Leu
 1365 1370 1375
 Gly Asn Lys Cys Val His Gly Thr Cys Leu Pro Ile Asn Ala Phe Ser
 1380 1385 1390

Tyr Ser Cys Lys Cys Leu Glu Gly His Gly Gly Val Leu Cys Asp Glu
1395 1400 1405

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Leu His Ser His His Thr Asp Pro Arg Ser Gln Pro Glu Glu Ser Val
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Gly Leu Arg Ala Glu Gly His Pro Asp Ser Leu Lys Asp Asn Ser Ser
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Cys Ser Val Met Ser Glu Glu Pro Glu Gly Arg Ser Tyr Ser Thr Leu
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Val	Gly	Leu	Arg	Ala	Glu	Gly	His	Pro	Asp	Ser	Leu	Lys	Asp	Asn	Ser
385					390					395					400
Ser	Cys	Ser	Val	Met	Ser	Glu	Glu	Pro	Glu	Gly	Arg	Ser	Tyr	Ser	Thr
				405					410					415	
Leu	Thr	Thr	Val	Arg	Glu	Ile	Glu	Thr	Gln	Thr	Glu	Leu	Leu	Ser	Pro
			420					425					430		
Gly	Ser	Gly	Arg	Ala	Glu	Glu	Glu	Glu	Asp	Gln	Asp	Glu	Gly	Ile	Lys
		435					440					445			
Gln	Ala	Met	Asn	His	Phe	Val	Gln	Glu	Asn	Gly	Thr	Leu	Arg	Ala	Lys
	450					455					460				
Pro	Thr	Gly	Asn	Gly	Ile	Tyr	Ile	Asn	Gly	Arg	Gly	His	Leu	Val	
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<210> 36

<211> 314

<212> PRT

<213> Homo sapiens

<400> 36

Gly Glu Leu Glu Thr Ser Asp Val Val Thr Val Val Leu Gly Gln Asp
1 5 10 15

Ala Lys Leu Pro Cys Phe Tyr Arg Gly Asp Ser Gly Glu Gln Val Gly
20 25 30

Gln Val Ala Trp Ala Arg Val Asp Ala Gly Glu Gly Ala Gln Glu Leu
35 40 45

Ala Leu Leu His Ser Lys Tyr Gly Leu His Val Ser Pro Ala Tyr Glu
50 55 60

Gly Arg Val Glu Gln Pro Pro Pro Pro Arg Asn Pro Leu Asp Gly Ser
65 70 75 80

Val Leu Leu Arg Asn Ala Val Gln Ala Asp Glu Gly Glu Tyr Glu Cys
85 90 95

Arg Val Ser Thr Phe Pro Ala Gly Ser Phe Gln Ala Arg Leu Arg Leu
100 105 110

Arg Val Leu Val Pro Pro Leu Pro Ser Leu Asn Pro Gly Pro Ala Leu
115 120 125

Glu Glu Gly Gln Gly Leu Thr Leu Ala Ala Ser Cys Thr Ala Glu Gly
130 135 140

Ser Pro Ala Pro Ser Val Thr Trp Asp Thr Glu Val Lys Gly Thr Thr
145 150 155 160

Ser Ser Arg Ser Phe Lys His Ser Arg Ser Ala Ala Val Thr Ser Glu
165 170 175

Phe His Leu Val Pro Ser Arg Ser Met Asn Gly Gln Pro Leu Thr Cys
180 185 190

Val Val Ser His Pro Gly Leu Leu Gln Asp Gln Arg Ile Thr His Ile
195 200 205

Leu His Val Ser Phe Leu Ala Glu Ala Ser Val Arg Gly Leu Glu Asp
210 215 220

Gln Asn Leu Trp His Ile Gly Arg Glu Gly Ala Met Leu Lys Cys Leu
 225 230 235 240

Ser Glu Gly Gln Pro Pro Pro Ser Tyr Asn Trp Thr Arg Leu Asp Gly
 245 250 255

Pro Leu Pro Ser Gly Val Arg Val Asp Gly Asp Thr Leu Gly Phe Pro
 260 265 270

Pro Leu Thr Thr Glu His Ser Gly Ile Tyr Val Cys His Val Ser Asn
 275 280 285

Glu Phe Ser Ser Arg Asp Ser Gln Val Thr Val Asp Val Leu Asp Pro
 290 295 300

Gln Glu Asp Ser Gly Lys Gln Val Asp Leu
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<210> 37

<211> 25

<212> PRT

<213> Homo sapiens

<400> 37

Val Ser Ala Ser Val Val Val Val Gly Val Ile Ala Ala Leu Leu Phe
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Cys Leu Leu Val Val Val Val Val Leu
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<210> 38

<211> 140

<212> PRT

<213> Homo sapiens

<400> 38

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 20 25 30

Ser His His Thr Asp Pro Arg Ser Gln Pro Glu Glu Ser Val Gly Leu
 35 40 45

Arg Ala Glu Gly His Pro Asp Ser Leu Lys Asp Asn Ser Ser Cys Ser
50 55 60

Val Met Ser Glu Glu Pro Glu Gly Arg Ser Tyr Ser Thr Leu Thr Thr
65 70 75 80

Val Arg Glu Ile Glu Thr Gln Thr Glu Leu Leu Ser Pro Gly Ser Gly
85 90 95

Arg Ala Glu Glu Glu Glu Asp Gln Asp Glu Gly Ile Lys Gln Ala Met
100 105 110

Asn His Phe Val Gln Glu Asn Gly Thr Leu Arg Ala Lys Pro Thr Gly
115 120 125

Asn Gly Ile Tyr Ile Asn Gly Arg Gly His Leu Val
130 135 140

<210> 39

<400> 39

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<210> 40

<400> 40

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<210> 41

<211> 2510

<212> DNA

<213> Homo sapiens

<400> 41

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gaggggagata gaaacacaga ctgaactgct gtctccaggc tctgggcggg ccgaggagga 780

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<210> 42

<211> 897

<212> DNA

<213> Homo sapiens

<400> 42

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cctggcctgc tccaggacca aaggatcacc cacatcctcc acgtgtcctt ccttgcctgag 180
gcctctgtga ggggccttga agacaaaaat ctgtggcaca ttggcagaga aggagctatg 240
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Ala Gln Gln Met Thr Gln Lys Tyr Glu Glu Glu Leu Thr Leu Thr Arg
195 200 205

Glu Asn Ser Ile Arg Arg Leu His Ser His His Thr Asp Pro Arg Ser
210 215 220

Gln Ser Glu Glu Pro Glu Gly Arg Ser Tyr Ser Thr Leu Thr Thr Val
225 230 235 240

Arg Glu Ile Glu Thr Gln Thr Glu Leu Leu Ser Pro Gly Ser Gly Arg
245 250 255

Ala Glu Glu Glu Glu Asp Gln Asp Glu Gly Ile Lys Gln Ala Met Asn
260 265 270

His Phe Val Gln Glu Asn Gly Thr Leu Arg Ala Lys Pro Thr Gly Asn
275 280 285

Gly Ile Tyr Ile Asn Gly Arg Gly His Leu Val
290 295

<210> 44
<400> 44
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<210> 45
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<210> 51
<211> 3114
<212> DNA
<213> Homo sapiens

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cttgaatagt tgtaactgtg atgcatatgt agattctaac acatttttcc cccttgaata 2040
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<210> 52

<211> 627

<212> DNA

<213> Homo sapiens

<400> 52

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<210> 53

<211> 209

<212> PRT

<213> Homo sapiens

<400> 53

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20 25 30

Ala Cys Phe Ile Val Ser Cys Val Val Thr Tyr His Phe Thr Tyr Gly
35 40 45

Glu Thr Gly Lys Arg Leu Ser Glu Leu His Ser Tyr His Ser Ser Leu
50 55 60

Thr Cys Phe Ser Glu Gly Thr Lys Val Pro Ala Trp Gly Cys Cys Pro
65 70 75 80

Ala Ser Trp Lys Ser Phe Gly Ser Ser Cys Tyr Phe Ile Ser Ser Glu
85 90 95

Glu Lys Val Trp Ser Lys Ser Glu Gln Asn Cys Val Glu Met Gly Ala
100 105 110

His Leu Val Val Phe Asn Thr Glu Ala Glu Gln Asn Phe Ile Val Gln
115 120 125

Gln Leu Asn Glu Ser Phe Ser Tyr Phe Leu Gly Leu Ser Asp Pro Gln
130 135 140

Gly Asn Asn Asn Trp Gln Trp Ile Asp Lys Thr Pro Tyr Glu Lys Asn
145 150 155 160

Val Arg Phe Trp His Leu Gly Glu Pro Asn His Ser Ala Glu Gln Cys
165 170 175

Ala Ser Ile Val Phe Trp Lys Pro Thr Gly Trp Gly Trp Asn Asp Val
180 185 190

Ile Cys Glu Thr Arg Arg Asn Ser Ile Cys Glu Met Asn Lys Ile Tyr
195 200 205

Leu

<210> 54

<211> 48

<212> PRT

<213> Homo sapiens

<400> 54

Met Met Gln Glu Gln Gln Pro Gln Ser Thr Glu Lys Arg Gly Trp Leu

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Ser	Leu	Arg	Leu	Trp	Ser	Val	Ala	Gly	Ile	Ser	Ile	Ala	Leu	Leu	Ser
			20					25					30		
Ala	Cys	Phe	Ile	Val	Ser	Cys	Val	Val	Thr	Tyr	His	Phe	Thr	Tyr	Gly
		35					40					45			

<210> 55
 <211> 161
 <212> PRT
 <213> Homo sapiens

<400> 55
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20 25 30
Ala Ser Trp Lys Ser Phe Gly Ser Ser Cys Tyr Phe Ile Ser Ser Glu
35 40 45
Glu Lys Val Trp Ser Lys Ser Glu Gln Asn Cys Val Glu Met Gly Ala
50 55 60
His Leu Val Val Phe Asn Thr Glu Ala Glu Gln Asn Phe Ile Val Gln
65 70 75 80
Gln Leu Asn Glu Ser Phe Ser Tyr Phe Leu Gly Leu Ser Asp Pro Gln
85 90 95
Gly Asn Asn Asn Trp Gln Trp Ile Asp Lys Thr Pro Tyr Glu Lys Asn
100 105 110
Val Arg Phe Trp His Leu Gly Glu Pro Asn His Ser Ala Glu Gln Cys
115 120 125
Ala Ser Ile Val Phe Trp Lys Pro Thr Gly Trp Gly Trp Asn Asp Val
130 135 140
Ile Cys Glu Thr Arg Arg Asn Ser Ile Cys Glu Met Asn Lys Ile Tyr
145 150 155 160

Leu

<210> 56
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<210> 57
<400> 57
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<210> 58
<400> 58
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<210> 59
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<210> 60
<211> 209
<212> PRT
<213> Mus sp.

<400> 60
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Phe Ile Ala Ser Cys Val Val Thr Tyr Gln Phe Ile Met Asp Gln Pro
35 40 45
Ser Arg Arg Leu Tyr Glu Leu His Thr Tyr His Ser Ser Leu Thr Cys
50 55 60
Phe Ser Glu Gly Thr Met Val Ser Glu Lys Met Trp Gly Cys Cys Pro
65 70 75 80
Asn His Trp Lys Ser Phe Gly Ser Ser Cys Tyr Leu Ile Ser Thr Lys
85 90 95

Glu	Asn	Phe	Trp	Ser	Thr	Ser	Glu	Gln	Asn	Cys	Val	Gln	Met	Gly	Ala
			100					105					110		
His	Leu	Val	Val	Ile	Asn	Thr	Glu	Ala	Glu	Gln	Asn	Phe	Ile	Thr	Gln
		115					120					125			
Gln	Leu	Asn	Glu	Ser	Leu	Ser	Tyr	Phe	Leu	Gly	Leu	Ser	Asp	Pro	Gln
	130					135					140				
Gly	Asn	Gly	Lys	Trp	Gln	Trp	Ile	Asp	Asp	Thr	Pro	Phe	Ser	Gln	Asn
145					150					155					160
Val	Arg	Phe	Trp	His	Pro	His	Glu	Pro	Asn	Leu	Pro	Glu	Glu	Arg	Cys
				165					170					175	
Val	Ser	Ile	Val	Tyr	Trp	Asn	Pro	Ser	Lys	Trp	Gly	Trp	Asn	Asp	Val
			180					185					190		
Phe	Cys	Asp	Ser	Lys	His	Asn	Ser	Ile	Cys	Glu	Met	Lys	Lys	Ile	Tyr
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Leu

<210> 61
 <211> 821
 <212> DNA
 <213> Mus sp.

<220>
 <221> unsure
 <222> ()..)

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 attttgaga cagatgcaag aaaccctga ccttctgaac atacacctca acaatggtgc 180
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 gtgagcagaa ctgtgttcag atgggggctc atctggtggt gatcaatact gaagcggagc 540
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821

<210> 62

<211> 534

<212> DNA

<213> Mus sp.

<400> 62

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gcgagcaga atttcatcac ccagcagctg aatgagtcac tttcttactt cctgggtctt 420
tcggatccca agtaatggc aaatggcaat ggatcgatga tactcctttc agtcaaatg 480
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<211> 178

<212> PRT

<213> Mus sp.

<400> 63

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Phe Ile Ala Ser Cys Val Val Thr Tyr Gln Phe Ile Met Asp Gln Pro
35 40 45

Ser Arg Arg Leu Tyr Glu Leu His Thr Tyr His Ser Ser Leu Thr Cys
50 55 60

Phe Ser Glu Gly Thr Met Val Ser Glu Lys Met Trp Gly Cys Cys Pro
65 70 75 80

Asn His Trp Lys Ser Phe Gly Ser Ser Cys Tyr Leu Ile Ser Thr Lys
85 90 95

Glu Asn Phe Trp Ser Thr Ser Glu Gln Asn Cys Val Gln Met Gly Ala
100 105 110

His Leu Val Val Ile Asn Thr Glu Ala Glu Gln Asn Phe Ile Thr Gln

115		120		125
Gln Leu Asn Glu Ser Leu Ser Tyr Phe Leu Gly Leu Ser Asp Pro Lys				
130		135		140
Val Met Ala Asn Gly Asn Gly Ser Met Ile Leu Leu Ser Val Lys Met				
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Ser Gly Ser Gly Thr Pro Met Asn Pro Ile Phe Gln Lys Ser Gly Val				
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				175
Phe Gln				

<210> 64
 <211> 48
 <212> PRT
 <213> Mus sp.

<400> 64
Met Val Gln Glu Arg Gln Ser Gln Gly Lys Gly Val Cys Trp Thr Leu
1 5 10 15
Arg Leu Trp Ser Ala Ala Val Ile Ser Met Leu Leu Leu Ser Thr Cys
20 25 30
Phe Ile Ala Ser Cys Val Val Thr Tyr Gln Phe Ile Met Asp Gln Pro
35 40 45

<210> 65
 <211> 130
 <212> PRT
 <213> Mus sp.

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1 5 10 15
Phe Ser Glu Gly Thr Met Val Ser Glu Lys Met Trp Gly Cys Cys Pro
20 25 30
Asn His Trp Lys Ser Phe Gly Ser Ser Cys Tyr Leu Ile Ser Thr Lys
35 40 45

Glu Asn Phe Trp Ser Thr Ser Glu Gln Asn Cys Val Gln Met Gly Ala
50 55 60

His Leu Val Val Ile Asn Thr Glu Ala Glu Gln Asn Phe Ile Thr Gln
65 70 75 80

Gln Leu Asn Glu Ser Leu Ser Tyr Phe Leu Gly Leu Ser Asp Pro Lys
85 90 95

Val Met Ala Asn Gly Asn Gly Ser Met Ile Leu Leu Ser Val Lys Met
100 105 110

Ser Gly Ser Gly Thr Pro Met Asn Pro Ile Phe Gln Lys Ser Gly Val
115 120 125

Phe Gln
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<213> Mus sp.

<400> 71

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<210> 72

<211> 627

<212> DNA

<213> Mus sp.

<400> 72

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taccaattta ttatggacca gccagtaga agactatatg aacttcacac ataccattcc 180
agtctcacct gcttcagtga agggactatg gtgtcagaaa aaatgtgggg atgctgcca 240
aatcactgga agtcatttgg ctccagctgc tacctcattt ctaccaagga gaacttctgg 300
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gaggagcaga atttcatcac ccagcagctg aatgagtcac tttcttactt cctgggtctt 420
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<210> 73

<211> 590

<212> PRT

<213> Mus sp.

<400> 73

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			20				25						30			
Val	Ala	Leu	Cys	Tyr	Ser	Thr	Arg	Pro	Thr	His	Arg	Leu	Glu	Ala	Arg	
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Gly	Leu	Glu	Thr	Arg	Pro	Ser	Glu	Arg	Ala	Leu	Ala	Ala	Leu	Ala	Val	
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65					70				75						80	
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Thr	Ala	Ser	Pro	Gly	Leu	Asn	Pro	Arg	Ser	Glu	Arg	Ala	Arg	Gly	Ala	
	130					135					140					
Arg	Gly	Leu	Glu	Thr	Tyr	Arg	Gly	Leu	Leu	Glu	His	Ile	Ser	Thr	His	
145					150					155					160	
Arg	Thr	Tyr	Arg	His	Ile	Ser	Ser	Glu	Arg	Ser	Glu	Arg	Leu	Glu	Thr	
				165					170					175		
His	Arg	Cys	Tyr	Ser	Pro	His	Glu	Ser	Glu	Arg	Gly	Leu	Gly	Leu	Tyr	
			180					185					190			
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		195					200					205				
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Pro	Arg	Ala	Ser	Asn	His	Ile	Ser	Thr	Arg	Pro	Leu	Tyr	Ser	Ser	Glu	
225					230					235					240	

Arg	Pro	His	Glu	Gly	Leu	Tyr	Ser	Glu	Arg	Ser	Glu	Arg	Cys	Tyr	Ser		
				245					250					255			
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			260					265					270				
Ser	Gly	Leu	Ala	Ser	Asn	Pro	His	Glu	Thr	Arg	Pro	Ser	Glu	Arg	Thr		
		275					280					285					
His	Arg	Ser	Glu	Arg	Gly	Leu	Gly	Leu	Asn	Ala	Ser	Asn	Cys	Tyr	Ser		
	290					295					300						
Val	Ala	Leu	Gly	Leu	Asn	Met	Glu	Thr	Gly	Leu	Tyr	Ala	Leu	Ala	His		
305					310					315					320		
Ile	Ser	Leu	Glu	Val	Ala	Leu	Val	Ala	Leu	Ile	Leu	Glu	Ala	Ser	Asn		
				325					330					335			
Thr	His	Arg	Gly	Leu	Ala	Leu	Ala	Gly	Leu	Gly	Leu	Asn	Ala	Ser	Asn		
			340					345					350				
Pro	His	Glu	Ile	Leu	Glu	Thr	His	Arg	Gly	Leu	Asn	Gly	Leu	Asn	Leu		
		355					360					365					
Glu	Ala	Ser	Asn	Gly	Leu	Ser	Glu	Arg	Leu	Glu	Ser	Glu	Arg	Thr	Tyr		
	370					375					380						
Arg	Pro	His	Glu	Leu	Glu	Gly	Leu	Tyr	Leu	Glu	Ser	Glu	Arg	Ala	Ser		
385				390						395					400		
Pro	Pro	Arg	Gly	Leu	Asn	Gly	Leu	Tyr	Ala	Ser	Asn	Gly	Leu	Tyr	Leu		
				405					410					415			
Tyr	Ser	Thr	Arg	Pro	Gly	Leu	Asn	Thr	Arg	Pro	Ile	Leu	Glu	Ala	Ser		
			420					425					430				
Pro	Ala	Ser	Pro	Thr	His	Arg	Pro	Arg	Pro	His	Glu	Ser	Glu	Arg	Gly		
		435					440					445					
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Pro	His	Ile	Ser	Pro	Arg	His	Ile	Ser	Gly	Leu	Pro	Arg	Ala	Ser	Asn		
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Leu	Glu	Pro	Arg	Gly	Leu	Gly	Leu	Ala	Arg	Gly	Cys	Tyr	Ser	Val	Ala		
				485					490						495		

Leu Ser Glu Arg Ile Leu Glu Val Ala Leu Thr Tyr Arg Thr Arg Pro
500 505 510

Ala Ser Asn Pro Arg Ser Glu Arg Leu Tyr Ser Thr Arg Pro Gly Leu
515 520 525

Tyr Thr Arg Pro Ala Ser Asn Ala Ser Pro Val Ala Leu Pro His Glu
530 535 540

Cys Tyr Ser Ala Ser Pro Ser Glu Arg Leu Tyr Ser His Ile Ser Ala
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Ser Asn Ser Glu Arg Ile Leu Glu Cys Tyr Ser Gly Leu Met Glu Thr
565 570 575

Leu Tyr Ser Leu Tyr Ser Ile Leu Glu Thr Tyr Arg Leu Glu
580 585 590

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 <213> Homo sapiens

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 aacactcttg gatttccaat attatgtttg agtaaaagaa ctgctatcca caaacaccat 300
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 tctgtctttt tacttctctg ggcctttatc tggggagggc atgtttcccc cacttggaac 420
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 gc 1202

<210> 82
 <211> 255
 <212> DNA
 <213> Homo sapiens

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 gcttgtgatg acattatttc taatagggaa tgggaaagga tgtagcttc tcagggtttta 180
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 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 83
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 Pro Gly Gln Asp Ser Asn Leu Trp Ala Cys Asp Asp Ile Ile Ser Asn
 35 40 45
 Arg Glu Trp Glu Arg Met Leu Ala Ser Gln Val Leu Lys Cys Pro Gly
 50 55 60
 Gly Glu Glu Lys Gly Arg His Glu Lys Glu Thr Met Lys Lys Met Gly
 65 70 75 80
 Glu Gly Glu Ile Val
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<210> 84
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 84
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 Trp Ala Phe Ile Trp Gly Gly
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<210> 85
 <211> 62
 <212> PRT
 <213> Homo sapiens

<400> 85
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	35						40					45			
Glu	Lys	Glu	Thr	Met	Lys	Lys	Met	Gly	Glu	Gly	Glu	Ile	Val		
	50						55					60			